

 a same common linear, branched or cyclic molecular core comprising at least three atoms of carbon, nitrogen, oxygen, phosphorus or sulfur and the first and second structural diversity elements, and further wherein the molecular cores have attachment points for the structural diversity elements, an ability to present the structural diversity elements in controlled varying arrangements, and an ability to be constructed in a rapid concerted fashion.

REMARKS

Applicants appreciate the courtesies extended to their representative, Allan A. Fanucci, during an interview with Examiner P. Achutamurthy on January 20, 1999. The comments and amendments appearing herein are substantially the same as those which were presented and discussed during the interview.

Claims 1-15, as amended, appear in this application for the Examiner's review and consideration. The independent claims have been amended to more clearly define the subject matter of Applicants' invention. Specifically, Claims 1, 8, 10 and 11 have been amended to recite with greater clarity the features of the compounds of Applicants' arrays and methods of making the same. Specifically, the compounds have been further defined as having a same common linear, branched or cyclic molecular core comprising at least three atoms of carbon, nitrogen, oxygen, phosphorus or sulfur and first and second structural diversity elements, with the molecular cores having attachment points for the structural diversity elements, an ability to present the structural diversity elements in controlled varying arrangements, and an ability to be constructed in a rapid concerted fashion. Also, claims 8 and 11 have been further amended to recite the same types of molecular cores as were previously recited in claims 1 and 10.

These amendments are fully supported by the specification and claims as originally filed. Accordingly, they do not constitute new matter, and their entry is

warranted.

Claims 1-15 were again rejected under 35 U.S.C. §112 as allegedly being non-enabled by the specification for "arrays comprising molecular constructs of undefined and unspecified chemical characteristics".

In response, as noted above, applicants have amended the independent claims to recite further features of the compounds of the arrays and subarrays. The molecular cores of these compounds have been further defined to include attachment points for the structural diversity elements, an ability to present the structural diversity elements in controlled varying arrangements, and an ability to be constructed in a rapid concerted fashion. This language is explicitly supported by page 18, lines 23-30 of the application, and is used to more clearly define the criteria for the types of compounds that are enabled by the specification.

As illustrated throughout the specification, the compounds have molecular cores to which the at least two structural diversity elements are attached. The various structural diversity elements are presented in controlled arrangements, and without steric hindrance or other constraints that would cause difficulties in the existence or preparation of the compounds. This language would also exclude compounds that have only one point of attachment for structural diversity elements. Accordingly, the rejection should be withdrawn as there is no indefiniteness as to the molecules or compounds that can be used in the arrays and subarrays. Also, there is no question of enablement for the compounds of the presently claimed arrays and methods.

Applicants note that a number of non-limiting examples of suitable molecular cores are disclosed in the specification. Furthermore, applicants should not be limited only to the specific chemistries disclosed because one of ordinary skill in the art having this teaching before him can easily adapt the present invention to other known chemistries

to form other compounds that have the necessary structure to be useful in the present arrays. At the interview, the Examiner indicated that the claims as presently amended fully meet the criteria of section 112.

In view of the above, it is submitted that the section 112 rejection has been overcome and should be withdrawn. Accordingly, the entire application is now believed to be in condition for allowance, early notice of which would be appreciated due to the presence of the disclaimer.

The Examiner has noted that the PTO 1449 forms will be returned with the next communication from the office. The return of these forms would be appreciated so that the references submitted herein can be made of record on the face of the resulting patent.

This amendment responds to the Advisory action dated February 22, 1999 and now clarifies that the first and second sub-arrays of claims 1 and 8 are different, i.e., that at least some of the compounds in one sub-array are not found in the other. Based on a telephone discussion with Examiner Achutamurthy on March 18, 1999, it is believed that this change places all claims in condition for allowance.

No fee is believed to be due for the submission of this response. Please charge any required fees to Pennie & Edmonds LLP deposit account no. 16-1150.

Respectfully submitted,

Date

3/18/99


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